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## *West Nile Virus*

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*Definition: Respondents who answered no to the question “Did you take any precautions this past summer to protect yourself from contracting West Nile Virus?”*

### **Prevalence of No West Nile Virus Precautions**

- South Dakota 31.0%
- There is no nationwide median for no West Nile Virus precautions

### **Healthy People 2010 Objective**

*There was no stated Healthy People 2010 Objective for no West Nile Virus precautions.*

### **Trend Analysis**

This was the first year this question was asked so no trend analysis could be done.

### **Demographics**

<b>Gender</b>	Males exhibit a significantly higher prevalence of those not taking any precautions to protect against West Nile Virus than females. This gender difference is evident across several demographics including whites, those in the higher income groups, those in the higher education groups, and those who are married.
<b>Age</b>	The prevalence of those not taking any West Nile Virus precautions decreases until the 35-44 age group and then starts a steady incline with a significant increase when the 75 and older age group is reached.
<b>Race</b>	Whites exhibit a significantly higher prevalence for the lack of West Nile Virus precautions than American Indians.
<b>Region</b>	The central and west regions demonstrate a significantly higher prevalence for the lack of West Nile Virus precautions than the other three regions.
<b>Household Income</b>	Lack of West Nile Virus precautions generally decreases as household income increases. This decrease is much more evident in females than males.
<b>Education</b>	Lack of West Nile Virus precautions decreases as education increases. This includes a significant decrease as the some post-high school level is reached.
<b>Employment Status</b>	Those who are retired, unemployed, or self-employed exhibit a very high prevalence of no West Nile Virus precautions, while those who are homemakers, unable to work, or employed for wages show a very low prevalence.
<b>Marital Status</b>	Those who are widowed or have never been married demonstrate a very high prevalence of no West Nile Virus precautions, while those who are married show a very low prevalence.

**Table 47**  
**Respondents Who Did Not Take Any Precautions Against West Nile Virus, 2004**

	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
<b>Total</b>	<b>5,971</b>	<b>31.0</b>	<b>(29.6-32.5)</b>	<b>2,448</b>	<b>37.0</b>	<b>(34.7-39.4)</b>	<b>3,523</b>	<b>25.3</b>	<b>(23.6-27.2)</b>
<b>Age</b>									
18-24	325	32.7	(27.0-38.9)	140	42.3	(33.4-51.7)	185	23.0	(16.6-31.0)
25-34	761	26.9	(23.3-30.9)	326	34.5	(28.8-40.8)	435	18.8	(14.9-23.4)
35-44	998	21.5	(18.6-24.6)	413	26.6	(22.0-31.8)	585	16.2	(13.2-19.7)
45-54	1,248	31.2	(28.3-34.3)	551	36.3	(31.8-41.0)	697	26.0	(22.5-29.9)
55-64	946	33.3	(29.9-36.9)	398	38.1	(32.9-43.7)	548	28.6	(24.4-33.2)
65-74	873	36.1	(32.5-39.8)	363	43.2	(37.6-49.1)	510	29.9	(25.6-34.6)
75+	801	45.0	(41.0-49.0)	251	49.3	(42.3-56.3)	550	42.2	(37.6-47.0)
<b>Race</b>									
White	5,352	31.2	(29.6-32.7)	2,210	37.0	(34.5-39.5)	3,142	25.6	(23.7-27.5)
American Indian	416	23.1	(18.3-28.8)	158	29.2	(21.0-39.1)	258	18.5	(13.5-24.8)
<b>Region</b>									
Southeast	1,477	29.1	(26.4-31.8)	608	34.3	(30.1-38.7)	869	24.1	(21.0-27.6)
Northeast	1,354	27.6	(24.9-30.6)	546	34.1	(29.5-39.0)	808	21.3	(18.4-24.6)
Central	1,126	34.2	(30.9-37.6)	451	42.4	(37.0-48.0)	675	26.9	(23.2-30.9)
West	1,391	36.6	(33.6-39.7)	580	42.1	(37.4-47.0)	811	31.0	(27.4-35.0)
American Indian Counties	623	28.8	(24.6-33.3)	263	34.1	(27.6-41.2)	360	23.4	(18.5-29.3)
<b>Household Income</b>									
Less than \$10,000	294	40.1	(32.1-48.5)	*	*	*	*	*	*
\$10,000-\$14,999	362	36.3	(30.1-43.0)	*	*	*	*	*	*
\$15,000-\$19,999	492	32.6	(27.5-38.1)	181	37.4	(29.1-46.5)	311	28.7	(22.7-35.5)
\$20,000-\$24,999	662	29.3	(25.0-33.9)	256	31.6	(24.9-39.3)	406	27.1	(22.1-32.8)
\$25,000-\$34,999	961	35.2	(31.4-39.2)	426	44.2	(38.3-50.3)	535	25.0	(20.8-29.7)
\$35,000-\$49,999	1,028	30.6	(27.3-34.1)	464	38.0	(32.8-43.5)	564	22.7	(19.0-26.8)
\$50,000-\$74,999	888	27.0	(23.7-30.5)	397	31.6	(26.5-37.1)	491	22.4	(18.6-26.8)
\$75,000+	708	27.0	(23.2-31.1)	373	32.3	(27.0-38.2)	335	19.1	(14.6-24.5)
<b>Education</b>									
8th Grade or Less	249	43.3	(36.2-50.7)	128	43.9	(34.2-54.0)	121	42.4	(32.4-53.1)
Some High School	310	41.1	(33.5-49.1)	128	47.1	(36.2-58.2)	182	34.8	(24.9-46.2)
High School or G.E.D.	1,962	33.7	(31.1-36.5)	839	38.5	(34.4-42.8)	1,123	28.7	(25.5-32.2)
Some Post-High School	1,699	28.2	(25.6-31.0)	632	35.7	(31.2-40.4)	1,067	22.1	(19.3-25.1)
College Graduate	1,743	27.8	(25.3-30.5)	718	33.7	(29.7-37.9)	1,025	22.2	(19.3-25.4)
<b>Employment Status</b>									
Employed for Wages	2,967	28.0	(26.0-30.0)	1,213	32.8	(29.6-36.1)	1,754	23.0	(20.6-25.5)
Self-employed	810	34.0	(30.3-38.0)	530	41.0	(36.0-46.1)	280	18.9	(14.4-24.3)
Unemployed	141	39.8	(29.0-51.8)	*	*	*	*	*	*
Homemaker	277	22.4	(17.3-28.6)	*	*	*	*	*	*
Student	130	29.1	(20.7-39.4)	*	*	*	*	*	*
Retired	1,465	40.7	(37.8-43.6)	517	44.0	(39.3-48.9)	948	38.1	(34.7-41.7)
Unable to Work	179	27.5	(20.7-35.5)	*	*	*	*	*	*
<b>Marital Status</b>									
Married/Unmarried Couple	3,567	28.0	(26.3-29.8)	1,537	34.4	(31.8-37.2)	2,030	21.7	(19.8-23.8)
Divorced/Separated	799	34.1	(30.2-38.2)	347	36.3	(30.7-42.3)	452	32.1	(26.8-37.8)
Widowed	866	42.0	(38.4-45.8)	161	51.4	(43.0-59.8)	705	39.7	(35.7-43.9)
Never Married	727	37.0	(32.1-42.2)	400	43.9	(37.2-50.7)	327	26.4	(19.8-34.2)

Note: \*Results based on sample sizes less than 100 have been suppressed.

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2004

### **Further Analysis**

Following are data illustrating the percent of respondents who have not taken precautions against West Nile Virus for various health behaviors and conditions. For example, 38.4 percent of respondents who stated they do not have a leisure time physical activity have not taken precautions against West Nile Virus, while 29.3 percent of respondents who have a leisure time physical activity have not taken precautions against West Nile Virus.

**Table 48**  
**No Precautions Taken Against West Nile Virus for Selected Health Behaviors and Conditions, 2004**

<b>Health Behavior or Condition</b>	<b># Respondents</b>	<b>% No Precautions Against West Nile Virus</b>	<b>95% CI</b>
Fair or Poor Health Status	933	35.3	31.6-39.2
Excellent, Very Good, or Good Health Status	5,025	30.4	28.8-32.0
Physical Health Not Good for 30 Days of the Past 30	382	32.3	26.5-38.7
Physical Health Not Good for 0-29 Days of the Past 30	5,537	30.9	29.3-32.4
Mental Health Not Good for 20-30 Days of the Past 30	338	34.2	28.2-40.7
Mental Health Not Good for 0-19 Days of the Past 30	5,575	30.8	29.3-32.4
Usual Activities Unattainable for 10-30 Days of the Past 30	387	30.8	25.6-36.6
Usual Activities Unattainable for 0-9 Days of the Past 30	5,566	31.1	29.5-32.6
Obese (BMI = 30.0+)	1,514	29.2	26.5-32.0
Overweight (BMI = 25.0-29.9)	2,212	33.1	30.7-35.6
Recommended Weight (BMI = 18.5-24.9)	1,990	30.7	28.1-33.4
No Leisure Time Physical Activity	1,277	38.4	35.1-41.7
Leisure Time Physical Activity	4,691	29.3	27.7-31.0
Current Smoker	1,196	32.1	28.8-35.7
Former Smoker	1,568	31.5	28.9-34.3
Never Smoked	3,198	30.4	28.4-32.5
Drank Alcohol in Past 30 Days	3,209	29.5	27.6-31.5
No Alcohol in Past 30 Days	2,726	33.2	30.9-35.5
Binge Drinker	774	33.0	28.9-37.3
Not a Binge Drinker	5,144	30.6	29.1-32.2
Heavy Drinker	203	35.0	27.4-43.4
Not a Heavy Drinker	5,695	30.7	29.2-32.2
No Mammogram within Past Two Years (40+)	639	32.3	28.1-36.8
Mammogram within Past Two Years (40+)	1,971	27.6	25.5-29.9
No Clinical Breast Exam within Past Two Years	664	35.6	30.9-40.6
Clinical Breast Exam within Past Two Years	2,830	23.1	21.2-25.0
Insufficient Cervical Cancer Screening	394	37.9	31.6-44.8
Sufficient Cervical Cancer Screening	2,192	22.8	20.7-25.0
No PSA Test within Past Two Years (40+)	781	39.0	35.0-43.0
PSA Test within Past Two Years (40+)	953	37.3	33.8-40.8
No Digital Rectal Exam within Past Two Years (40+)	794	40.8	36.8-44.9
Digital Rectal Exam within Past Two Years (40+)	995	36.0	32.7-39.5
No Blood Stool Test within Past Two Years (50+)	2,372	37.0	34.8-39.3
Blood Stool Test within Past Two Years (50+)	877	33.3	29.8-36.9
Never Had Sigmoidoscopy or Colonoscopy (50+)	1,618	36.5	33.8-39.3
Ever Had Sigmoidoscopy or Colonoscopy (50+)	1,656	35.7	33.1-38.4
Haven't Been to the Dentist in the Past 12 Months	1,806	36.2	33.4-39.1
Been to the Dentist in the Past 12 Months	4,154	29.0	27.3-30.8
No Health Insurance (18-64)	365	36.7	30.1-43.9
Health Insurance (18-64)	3,880	27.7	26.0-29.5
Employer Based Health Insurance Coverage (18-64)	2,657	25.7	23.7-27.8
Private Health Insurance Plan (18-64)	530	34.8	29.7-40.2
Medicare (18-64)	117	30.5	22.0-40.5
Medicaid or Medical Assistance (18-64)	108	28.2	19.3-39.1
The Military, CHAMPUS, TriCare, or the VA (18-64)	185	42.4	33.9-51.3
The Indian Health Service (18-64)	234	21.9	15.8-29.6
No Flu Shot (65+)	411	45.4	39.9-51.0
Flu Shot (65+)	1,259	39.3	36.2-42.4
No Pneumonia Shot (65+)	567	44.6	39.9-49.3
Pneumonia Shot (65+)	1,087	38.8	35.5-42.1

<b>Table 48 (continued)</b> <b>No Precautions Taken Against West Nile Virus for Selected Health Behaviors and Conditions, 2004</b>			
<b>Health Behavior or Condition</b>	<b># Respondents</b>	<b>% No Precautions Against West Nile Virus</b>	<b>95% CI</b>
Diabetes	515	33.2	28.5-38.3
No Diabetes	5,453	30.9	29.3-32.4
Current Asthma	439	25.2	20.2-30.9
Former Asthma	186	25.6	18.5-34.2
Never Had Asthma	5,323	31.8	30.2-33.4
Previously Had a Heart Attack	367	43.4	37.7-49.3
Never Had a Heart Attack	5,597	30.4	28.9-32.0
Have Angina or Coronary Heart Disease	399	39.2	33.8-44.8
Do not Have Angina or Coronary Heart Disease	5,548	30.6	29.0-32.1
Previously Had a Stroke	192	40.4	32.8-48.5
Never Had a Stroke	5,772	30.8	29.3-32.4
Physical, Mental, or Emotional Disability	1,238	32.7	29.5-36.0
No Physical, Mental, or Emotional Disability	4,725	30.7	29.1-32.4
Disability with Special Equipment Needed	441	37.1	31.9-42.7
No Disability with Special Equipment Needed	5,528	30.7	29.2-32.2
Four or More Hours of TV Watched per Day	1,421	33.7	30.8-36.8
Less Than Four Hours of TV Watched per Day	4,514	30.4	28.7-32.1
Sick from Poor Indoor Air Quality in Past Year	996	24.6	21.3-28.2
Not Sick from Poor Indoor Air Quality in Past Year	4,930	32.5	30.9-34.2
Sick from Outdoor Air Pollution in Past Year	417	24.7	20.0-30.0
Not Sick from Outdoor Air Pollution in Past Year	5,530	31.5	30.0-33.1
Firearm in Household	3,358	29.6	27.7-31.5
No Firearms in Household	2,502	32.7	30.3-35.2
Loaded and Unlocked Firearm in Household	273	43.5	36.1-51.2
No Loaded and Unlocked Firearms in Household	5,549	30.2	28.7-31.8
No Birth Control (females 18-44 & males 18-59)	324	35.7	29.6-42.2
Birth Control (females 18-44 & males 18-59)	1,654	25.1	22.7-27.7
Never Been Tested for HIV (18-64)	3,056	29.3	27.3-31.4
Been Tested for HIV (18-64)	1,139	26.5	23.3-30.0
Sunburn in Past 12 Months	2,120	26.5	24.3-29.0
No Sunburn in Past 12 Months	3,841	34.4	32.5-36.3
Military Veteran	993	40.8	37.2-44.4
Not a Military Veteran	4,977	29.1	27.5-30.8

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2004

Table 49, below, displays the respondents who took any precautions this past summer to protect themselves from contracting West Nile Virus. Nearly always and sometimes were the highest responses with 71.6 percent and 71.5 percent respectively.

<b>Table 49</b> <b>Respondents Who Took Any Precautions This Past Summer to Protect Themselves from Contracting West Nile Virus, 2004</b>		
<b>Frequency of Being Outdoors in the Summer Evenings</b>	<b># Respondents</b>	<b>Percent</b>
<b>Total</b>	<b>5,965</b>	<b>69.0%</b>
Always	1,008	64.8%
Nearly always	1,886	71.6%
Sometimes	1,859	71.5%
Seldom	989	67.9%
Never	223	40.0%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2004

Table 50, below, list precautions taken to avoid contracting West Nile Virus. Use of mosquito repellent was the top precaution taken with 64.2 percent, only 28.3 percent said they avoid outdoor activities.

<b>Table 50</b>		
<b>Precautions Taken to Avoid Contracting West Nile Virus, 2004</b>		
	<b># Respondents</b>	<b>Percent</b>
Use mosquito repellent	5,970	64.2%
Check property for places mosquitoes can breed	5,968	49.7%
Wear long pants and long sleeved shirts	5,964	43.4%
Avoid outdoor activities	5,964	28.3%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2004